

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method for assaying an activation state of a platelets comprising ~~detecting catalysis of~~

(a) providing a mixture comprising said platelets, a prothrombin-converting enzyme and a modified prothrombinase substrate of said prothrombin-converting enzyme[[,]]; and

(b) assaying a product produced in step (a) to a modified prothrombinase product, wherein said product having the property that said product does not activate platelets, ~~by a prothrombinase which is associated with the platelet.~~

2. (Currently amended) The method of claim 1 wherein said substrate is a modified prothrombin and said the detection of the catalysis of a modified prothrombinase substrate ~~comprises detecting the production of product is a modified thrombin, wherein said thrombin does not activate platelets.~~

3. (Currently amended) The method of claim 1 ~~2~~ wherein detecting assaying the catalysis of a said modified thrombin prothrombinase substrate ~~comprises detection assaying a catalytic activity of said modified thrombin-catalytic activity.~~

4. (Currently amended) The method of claim 1 wherein said prothrombin-converting enzyme is exogenous ~~the prothrombinase enzyme comprises factor Xa, factor Va and one or more members selected from the group consisting of a PS:PC vesicle and a platelet.~~

5. (Currently amended) The method of claim 1 ~~2~~ wherein said modified prothrombin ~~the modified prothrombinase substrate~~ comprises prothrombin which is chemically derivatized by the addition of one or more chemical groups selected from the group consisting of an acyl group, an acetyl group, a succinyl group, a maleyl group, a polyethylene glycol group, an acetylated polyethylene glycol group, a pyridoxal 5'-phosphate group and a dichlorotriazinylaminofluoresciny group.

Linked ImmunoSorbent Assay (ELISA), an immunodiffusion assay, a surface ~~plasmin~~ plasmon resonance assay, a chromogenic peptide cleavage assay, a polyacrylamide gel electrophoresis analysis, and a fluorescence proximity assay.

15. (Currently amended) The kit of claim 13 wherein the ~~modified-prothrombinase~~ substrate is prothrombin which is chemically derivatized by the addition of one or more chemical groups selected from the group consisting of an acyl group, an acetyl group, a succinyl group, a maleyl group, a polyethylene glycol group, an acetylated polyethylene glycol group, a pyridoxal 5'-phosphate group and a dichlorotriazinylaminofluoresciny group.

16. (Currently amended) The kit of claim 13 wherein the ~~modified-prothrombinase~~ substrate is a product of an allele of a prothrombin gene selected from the group consisting of *Metz* and *Quick I*.

17. (Currently amended) The kit of claim 13 wherein the ~~prothrombinase-product~~ assay of said product comprises reagents for a chromogenic peptide cleavage assay wherein the reagents comprise a peptide having a sequence cleaved by thrombin.

18. (Currently amended) The kit of claim 17 wherein the peptide is glycyl-L-prolyl L-arginine wherein the amino terminal end of the peptide is linked ~~crosslinked~~ to a tosyl group and the carboxyl terminal end of the peptide is linked ~~crosslinked~~ to a ~~p-nitroanilide~~ p-nitroanilide group.

19. (Currently amended) The kit of claim 13 further comprising one or more reagents selected from the group consisting of human ~~α -thrombin~~ thrombin, calcium ionophore A23187, factor Xa, Sulfo-N-succinimidyl acetate, factor Va and phospholipid vesicles comprising phosphatidylserine and phosphatidylcholine.

20. (Original) The kit of claim 13 further comprising one or more components selected from the group consisting of a glass vial, a microtiter plate, water and a syringe.